

NAUTICAL NOTES

NOTE NO 7

21.10.94

LOSS OF CONTAINERS

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During a recent investigation into a loss of containers we found a variety of faults with a vessel but the primary cause of the loss was the basic lack of structural integrity of the dovetail feet on the hatchcovers which were badly worn and provided little resistance to uplift of the Dovetail twistlocks.

When undertaking inspections of container vessels there is a tendency to look at lashing gear and the dovetail twist locks, but not to pay such close attention to the feet that the twist locks fit into. The feet in many cases are very badly worn and although the twist locks will fit into them they will just as easily pull out, rather than having to be slid in and out.

Even in cases when they have to be slid in and out the loss of surface contact between the dovetail twist lock and the dovetail foot is such that the load bearing surface is grossly reduced and thus the static load capability is well below what would be expected and used in the calculations.

It may therefore be that in cases where containers have been lost they are not lost due to insufficiency or

inefficiency of lashings but are in fact lost due to unseaworthiness by the poor structure of the vessel prior to the voyage by virtue of excessively worn dovetail feet.

This problem is that after containers have gone overboard it is quite likely that some dovetails, will have torn, and that causation will be due to the twistlock pulley out. It may well be that other feet are not so recently torn and are also suffering extreme corrosion. It takes a few moments to look really closely at each foot and to access it. Each foot should preferably be marked and numbered so that it can be located again. Photographs from a low angle possibly with a twistlock in position are an excellent vehicle for recording the situation.

Some estimate of the loss of load bearing capacity can then be made.

Many, as we found, will be badly mauled due to chronic misuse, abuse and lack of maintenance.

In this regard we note from the interclub agreement the very fundamental fact of life that if the vessel is unseaworthy by virtue of such a failure then the costs will all fall on the Owner,

if however there is a suggestion that the lashing were insufficient and that no fault was found or noticed with the basic fabric of the vessel then Charters will have to accept 50% of the costs.

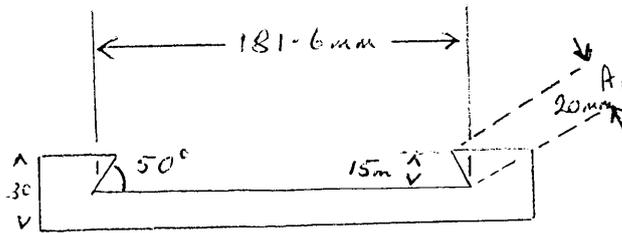
When a vessel is rolling it can be seen that the resistance to uplift of the dovetail twistlock is provided almost entirely by the angled 20 mm slope of the dovetail foot fitting.

Any deterioration or loss of face to face contact between the fittings will result in a large reduction in the effectiveness of the resistance to uplift.

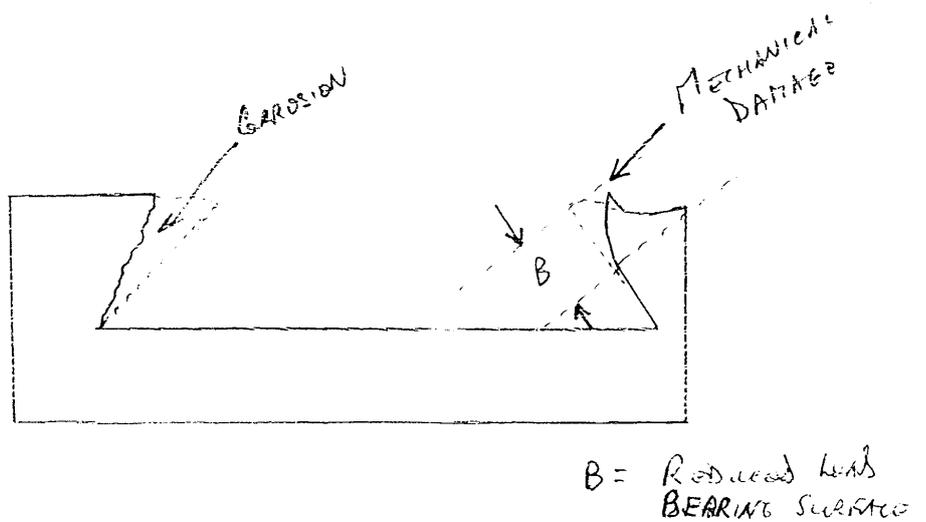
A typical dovetail fitting is shown together with nominal dimensions and clearances.

In this diagram it can be seen how the effects of wear down affect the load bearing resistance of the unit as a whole. A typical dovetail fitting is shown together with nominal dimensions and clearances.

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